TREATMENT OF ADSORBENT TO ENHANCE OF ADSORBENT CAPACITY FOR ACETYLENIC COMPOUNDS

ABSTRACT OF THE INVENTION

Processes using heterogeneous adsorbents are disclosed for purification of olefin streams, such as are produced by thermal cracking of hydrocarbons, to obtain a feedstock suitable for formation of olefin polymers. These purification processes comprises: providing an impure gaseous mixture; passing the impure mixture through a bed of regenerated adsorbent which is free of a substantial amount of carbon monoxide; effecting, in the presence of an essentially dihydrogen-free atmosphere within the bed, selective adsorption of the contained acetylenic impurities with the adsorbent until levels of the acetylenic impurities in the effluent mixture increase to a limiting level in a range downward from about 1 parts per million by volume; and thereafter regenerating the resulting bed of adsorbent in the presence of a reducing gas comprising dihydrogen which reducing gas is free of a substantial amount of carbon monoxide.